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FOREIGN NEWS ON CITRUS FRUIT

FERTILIZER PRACTICES OF SICILIAN LEMON PRODUCERS

The area devoted to lemon groves in the province of Palermo amounts to 23,679 acres, with an average acreage of from 3 1/2 to 5 acres per grove, according to a report received in the Department of Agriculture from Vice Consul George Tait at Palermo. Until twenty years ago the only system of fertilization known was the use of manure. This method is now used by relatively few growers and it is limited principally to cases where groves are planted on new lands. Where the old method still prevails the manure is generally applied once every three years but in some rare instances once in two years. The cost of such fertilization varies according to the age of the tree as for young trees four or five baskets (265/330 lbs) will suffice, whereas for old trees seven or eight baskets (460/500 lbs) of manure are used.

The modern system of fertilization and the system most widely used by the growers is the employment of a mixture of sulphate of ammonia, superphosphates and potash. Potash is used in much smaller proportions than sulphate of ammonia and superphosphates. These commercial fertilizers are applied every year and while less costly per tree than manure their more frequent use makes the system more expensive in the long run. Some of the leading producers express the opinion that lemons produced under commercial fertilization are inferior to and tend to rot sooner than those grown under natural fertilization. It is the consensus of opinion, however, that the yield is largely augmented by the use of commercial fertilizers.

Comparative Costs per tree of Fertilizing Lemon Trees with
Manure and Commercial Fertilizers

Operation	: Minimum	: Maximum	: Minimum	: Maximum
	: Lire	: Lire	: Cents	: Cents
WITH MANURE	:	:	:	:
Cost of manure	: 5.00	: 8.00	: 20.0	: 32.0
Cost of digging	: 0.75	: 1.25	: 3.0	: 5.0
Cost of water	: 0.25	: 0.50	: 1.0	: 2.0
Total	: 6.00	: 9.75	: 24.0	: 39.0
WITH COMMERCIAL FERTILIZERS	:	:	:	:
Cost of mixture of commercial fertilizers	: 2.50	: 4.00	: 10.0	: 16.0
Cost of digging	: 0.50	: 0.75	: 2.0	: 3.0
Cost of water	: 0.25	: 0.50	: 1.0	: 2.0
Total	: 3.25	: 5.25	: 13.0	: 21.0

Conversions made at exchange of 4 cts to the lire.

The actual percentages of the various commercial fertilizers used by Sicilian lemon growers are as follows:

Sulphate of armonia - 20/21 per cent is employed in the proportion of two or three fifths of the mixture. This material is imported chiefly from Great Britain and Holland. Its cost is about Italian lire 165 per 100 kilos (220 lbs) which is equivalent to about \$3.02 per 100 pounds at current exchange (February 6).

Superphosphates - 14/16 per cent; 16/18 per cent; 18/20 per cent, are employed in the proportion of one or two fifths of the mixture. Superphosphates are imported from the North of Italy and from France; but those used in this location are produced chiefly by a local company, which has an annual output of about 200,000,000 lbs. This company has stated that it expects to double its production during the current year. The present cost of superphosphate (February 6) is as follows:

	<u>14/16 per cent</u>	<u>16/18 per cent</u>	<u>18/20 per cent</u>
Lire per 100 kilos	33.20	35.20	37.40
Dollars per 100 lbs.	\$0.61	\$0.64	\$0.69

Chlorure of potash. sulphate of potash - The mixture is completed with either one fifth of chlorure of potash or one fifth of sulphate of potash; they are chiefly imported from Germany and France, the present cost (February 6) being as follows:

Chlorure of potash 40/42 per cent, 60/82; 80/82; Lire 100 per 100 kilos (1.83 per 100 lbs). Sulphate of potash 90 per cent; lire 130 per 100 kilos (\$2.38 per 100 lbs).

Sodium Nitrate - Attention is called to the fact that sodium nitrate has never been employed by the lemon growers in this district as it is believed that the use of this fertilizer element would be detrimental to the fruit.

The importation of nitrates, phosphates and potash for the years 1922 to 1925 inclusive, the only years for which statistics are available, was as follows:

COMMERCIAL FERTILIZERS: Imports into Sicily and Palermo,
1922-25.

Year	Potash		Phosphates		Nitrates and all other fertilizer elements	
	Total		Total		Total	
	Sicily	Palermo	Sicily	Palermo	Sicily	Palermo
	Short	Short	Short	Short	Short	Short
	tons	tons	tons	tons	tons	tons
1922	330	54	3,990	1,685	2,573	680
1923	497	57	9,827	2,284	2,326	1,079
1924	838	226	20,553	4,127	2,884	927
1925	965	203	15,562	---	5,647	2,120

